

# EU Arctic Cluster's side event

## Improved safety and environmentally sound operations in the Arctic Ocean - How to move forward?

Arctic Frontiers, 23 January 2019



# Integrated European Union Policy for the Arctic

## 3 priority areas

1. Climate change and safeguarding the Arctic Environment
2. Sustainable Development in and around the Arctic
3. International Cooperation on Arctic Issues.



## The EU Arctic Cluster projects

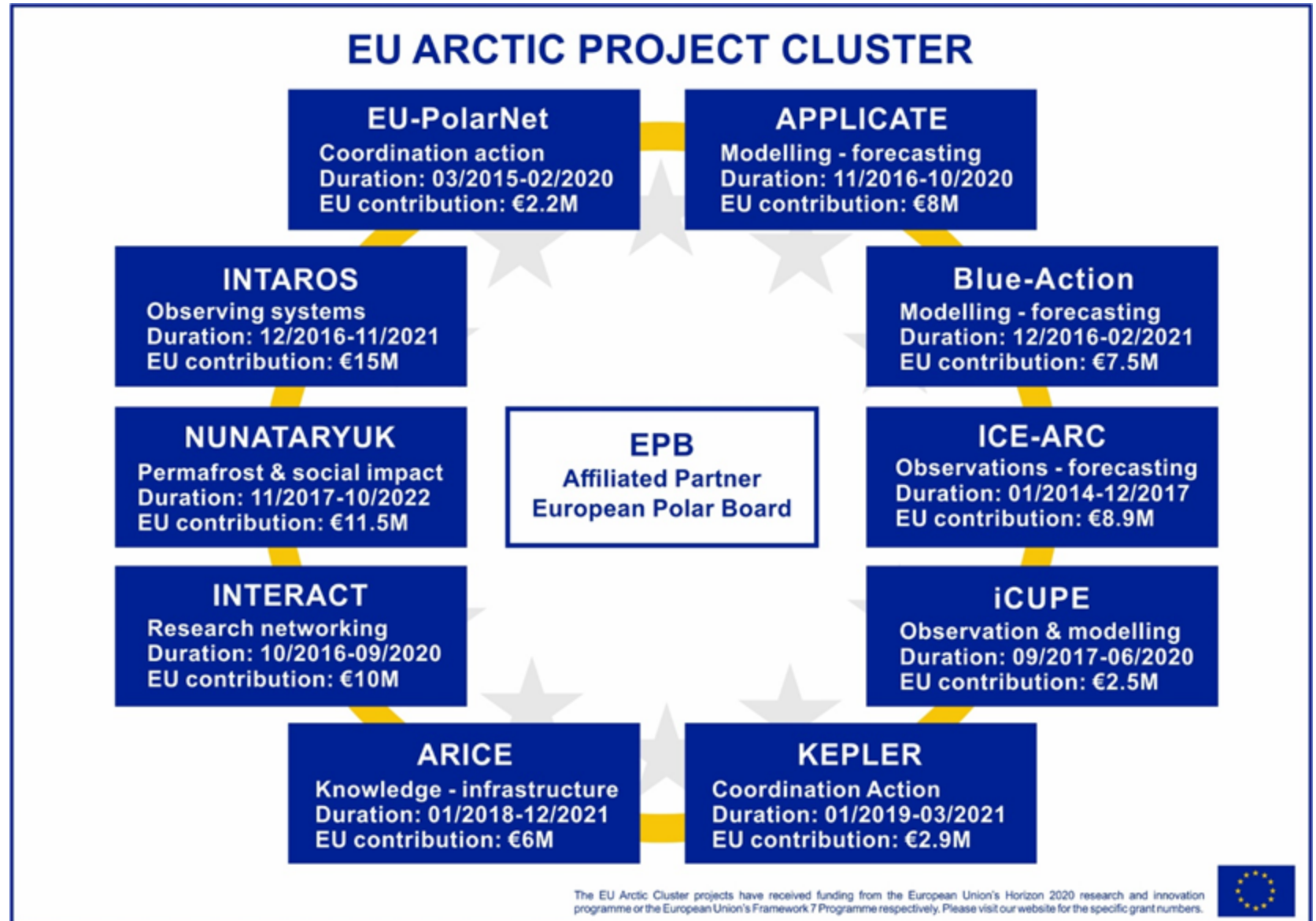




# The EU Arctic Cluster

Main focus:

Stakeholder engagement  
Communication  
Data management  
Training



# Introductions – who is in the room?

Go to [www.menti.com](https://www.menti.com) and use the code **43 38 66**

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What is your profession, role, expertise or main interest ?



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23/01/2019

# Improved safety and environmentally sound operations in the Arctic Ocean

- **Topic 1:** How can improved operational weather and ocean (including sea ice) as well as climate forecast support for safer operations in the Arctic?
- **Topic 2:** Is co-developing new services, products and technologies for safe operations and improved joint monitoring in the Arctic Ocean the way forward for improving cooperation between ship operators, research institutions and local communities?
- **Topic 3:** How can we reduce the overall environmental footprint and prevent negative environmental impacts in the Arctic?



Anchored instrument for measuring sea ice thickness. Alfred-Wegener Institute (AWI)/Credits: Stefan Hendricks



# PRESENTATION

**Jens Peter Holst-Andersen, Arctic Council Working Group EPPR**



Anchored instrument for measuring sea ice thickness. Alfred-Wegener Institute (AWI)/Credits: Stefan Hendricks

# EPPR

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EMERGENCY PREVENTION PREPAREDNESS AND RESPONSE

[WWW.EPPR.ORG](http://WWW.EPPR.ORG)



EMERGENCY PREVENTION  
PREPAREDNESS AND RESPONSE



ARCTIC COUNCIL



# Risk assessment methods and metadata

- Step wise approach towards a full Circumpolar Marine Environmental Risk Assessment
- Develop a guideline document and practical tool box
- Access to updated and reliable metocean data to inform planning and decisions

# Circumpolar Oil Spill Viability Analysis – Phase 1 and 2

- When and where different types of response options can be deployed
- Provides science-based decision-making in Arctic oil spill response contingency planning
- Phase 2 – updated metocean data with baseline response systems available in a web-based GIS tool



# thank you

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EPPR - EMERGENCY PREVENTION PREPAREDNESS AND RESPONSE

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EMERGENCY PREVENTION  
PREPAREDNESS AND RESPONSE



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# PRESENTATION

Øivin Aarnes, DNV GL



Anchored instrument for measuring sea ice thickness. Alfred-Wegener Institute (AWI)/Credits: Stefan Hendricks



# Adapting to extreme weather events



Can we expect a Polar Low on this transit?

Should we re-route to avoid bad weather?

AHI image captured by the Japan Meteorology Agency's Himawari-8 satellite SSEC/CIMSS, University of Wisconsin-Madison

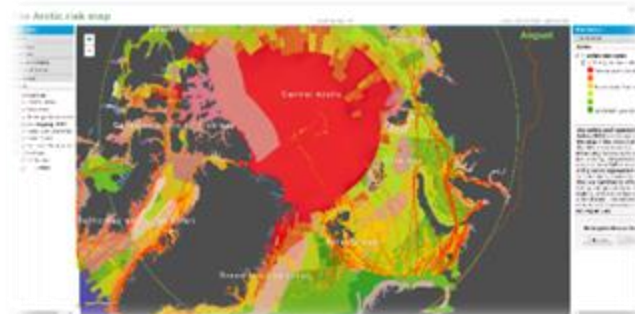


# Co-development with end-users

**Scoping of stakeholder and end-user requirements**

**Co-development of climate services**

**Dissemination of products/end-user workshop on polar lows prediction**





# Contributing to reduced emissions from shipping



Fishing vessels operating near Bjørnøya

# Aligning with the SDGs

Business climate action refers to the actions taken by business to responsibly manage the risks of climate change

- Commitment to the UN Sustainable Development Goals and the Paris Agreement
- Integration of climate risks and opportunities into sustainability strategies and action
- Involvement of users, stakeholders, communities, and business in design of experiments, and development of services
- A sharing mindset; bilateral transparency between government, society, research, and business



The resilience of an organization is interlinked with the resilience of its societal context



# PRESENTATION

**Kikki Kleiven, University of Bergen & Bjerknes Centre for Climate Change**

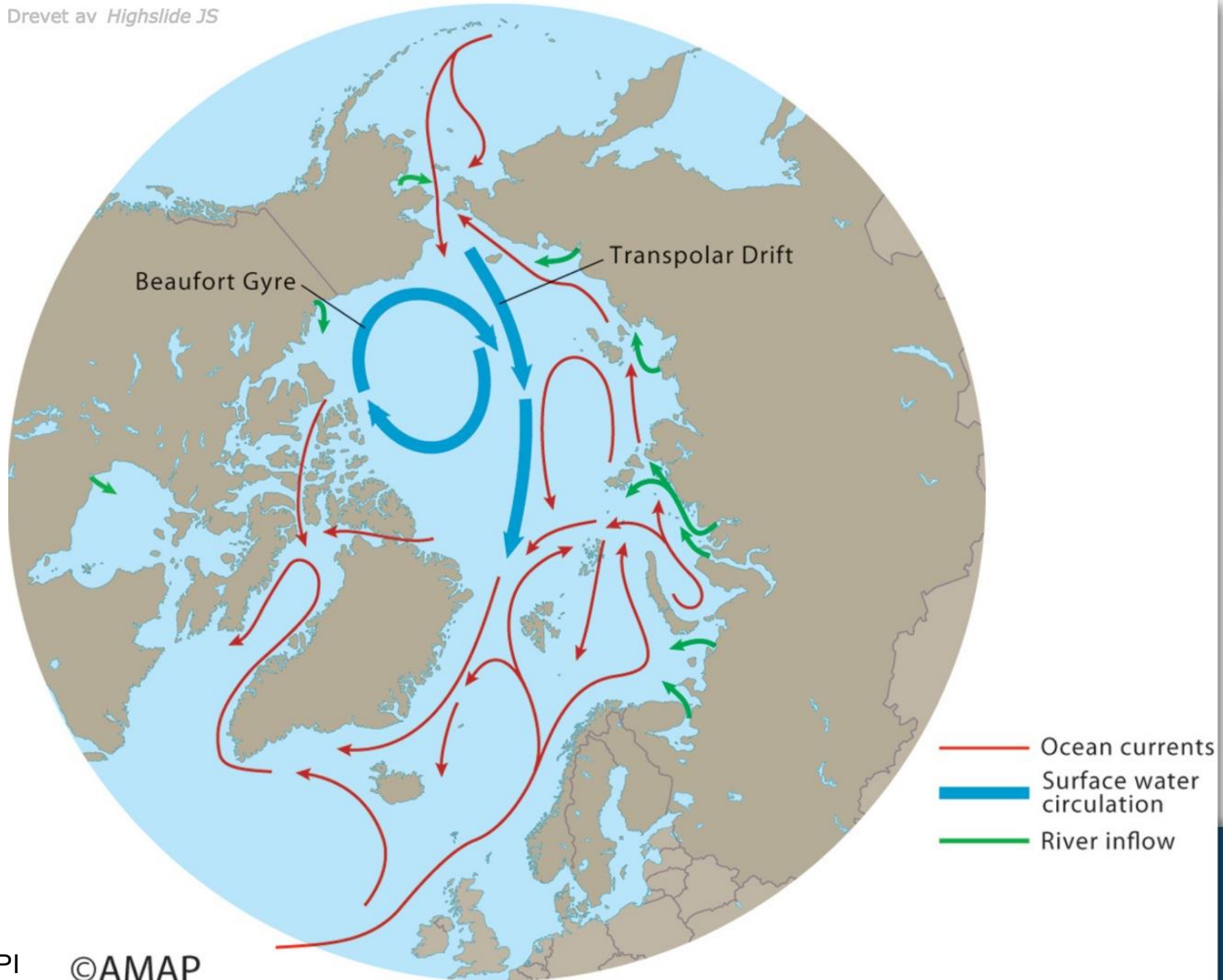


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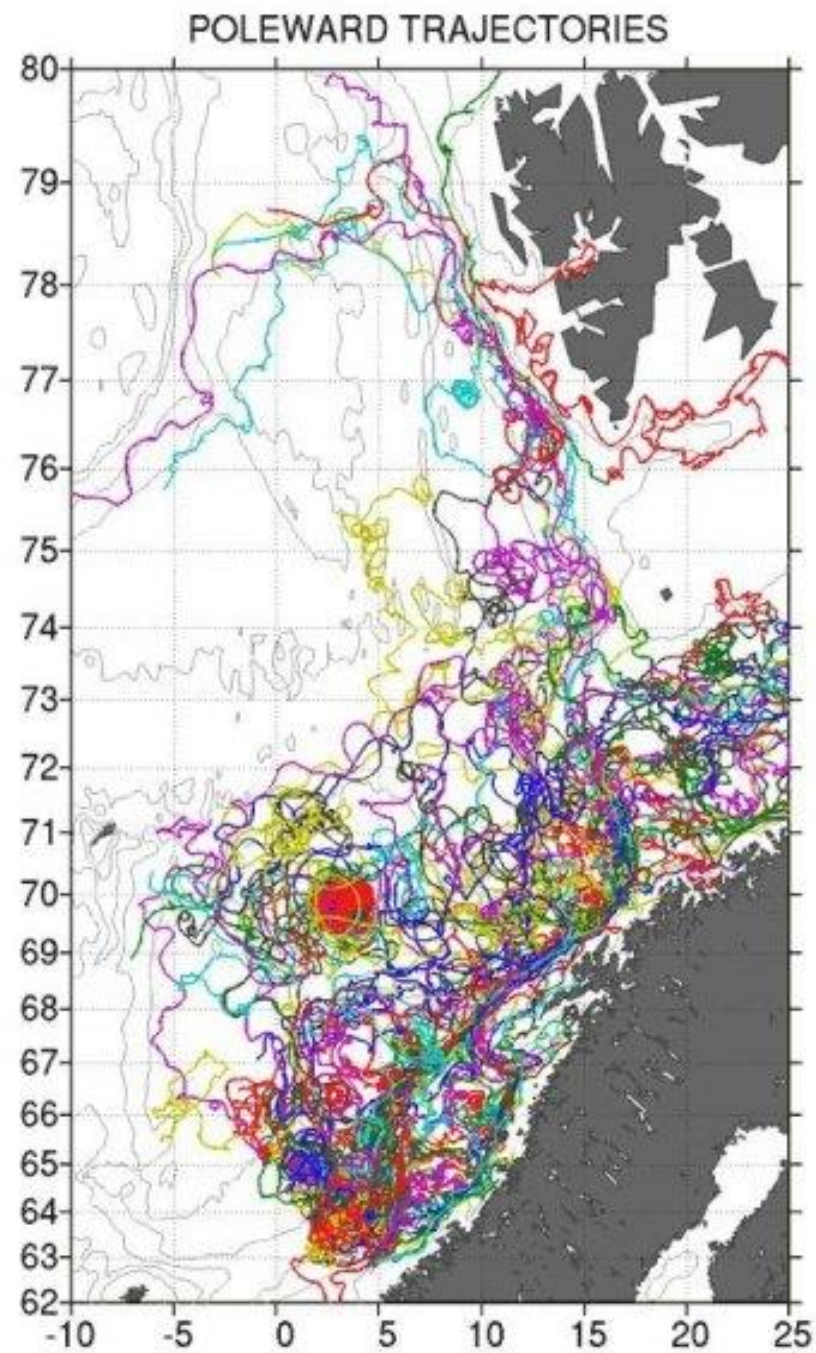
Source: International Permafrost Association, 1998.  
Circumpolar Active-Layer Permafrost System (CAPS), version 1.0.





Credit: Illustration: POLEWARD





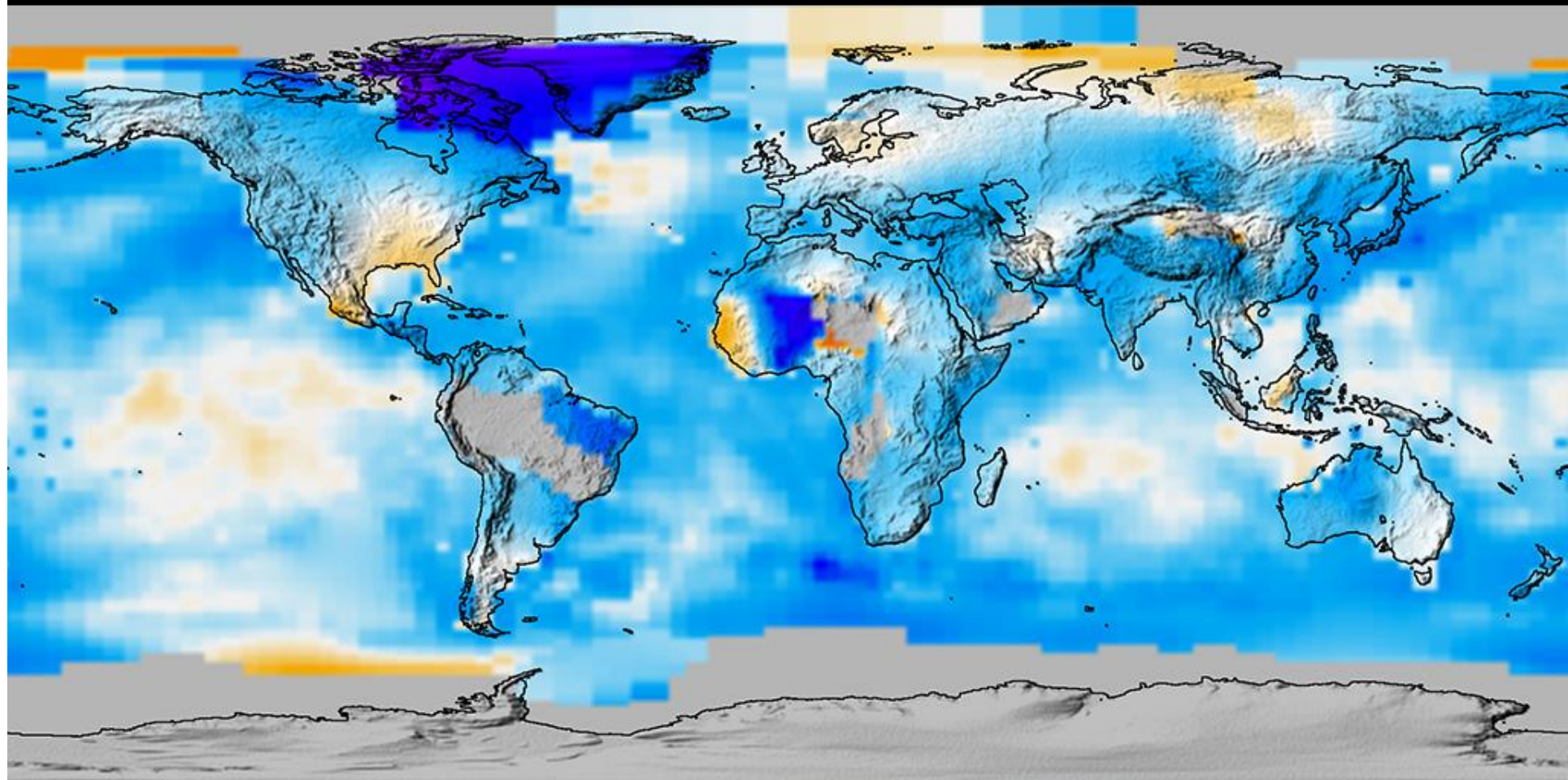
Credit: Illustration: POLEWAR







# 1906-1916



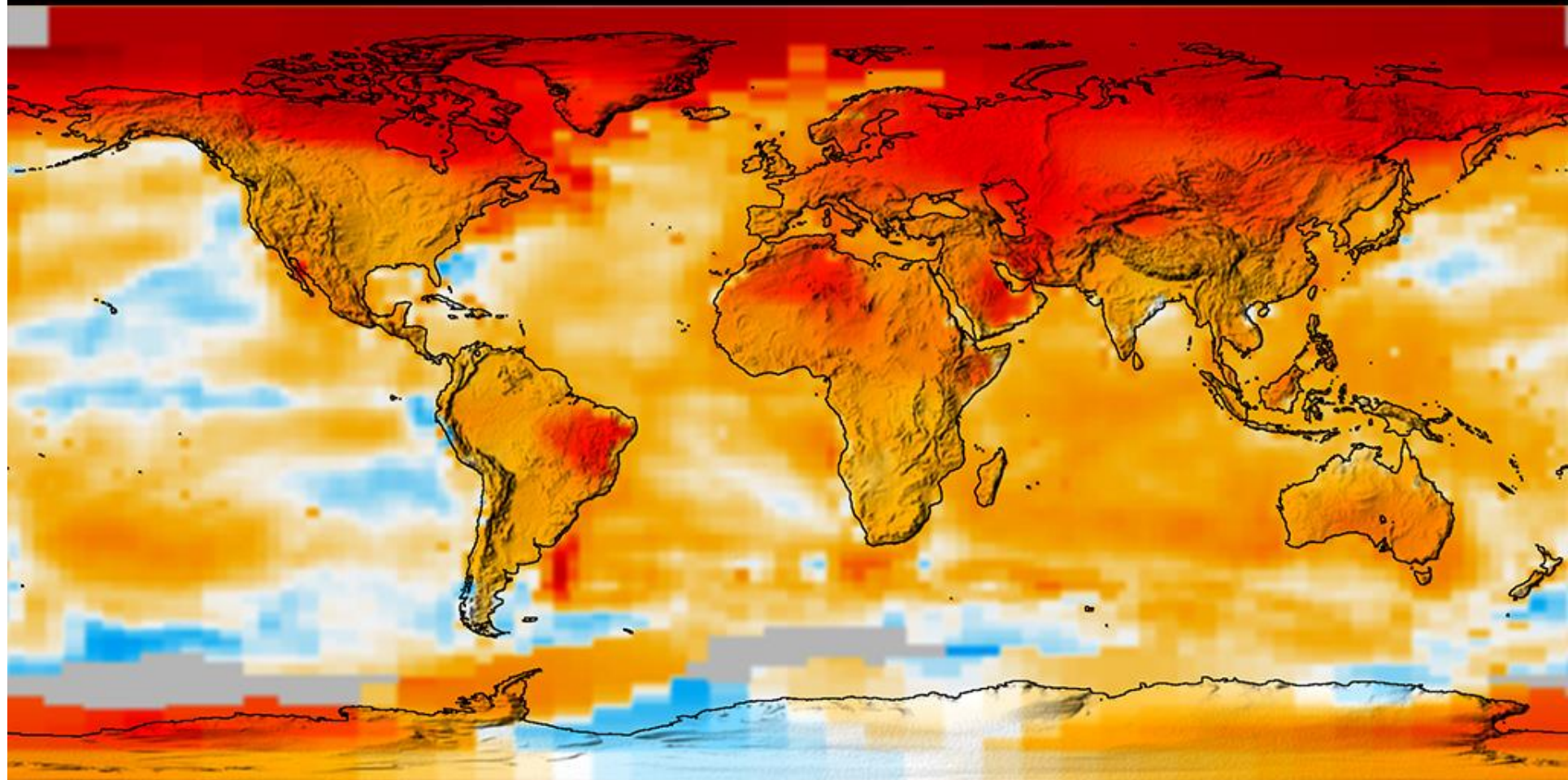
Data: NASA/GISS. Graphics: Bentsen, Bethke, Drange @ bjerkes.uib.no

3 yr averages (°C) relative to 1951-1980





# 2006-2016



Data: NASA/GISS. Graphics: Bentsen, Bethke, Drange @ bjerkes.uib.no

3 yr averages (°C) relative to 1951-1980













# Spread of pollutants to the Arctic







Photo: AK Balto, NPI



Photo: A. Skoglund, NPI



Photo: AK Balto, NPI



Photo: S. Gerland, NPI



Photo: F. Broms, NPI



International Ocean Discovery Program 302 ACEX expedition at the Northpole August 2004  
Drillship Vidar Viking and icebreakers Oden and Sovetskiy Soyuz in operation



Foto: Martin Jakobsson.



# Roundtable discussions

**Topic 1:** How can improved operational weather and ocean (including sea ice) as well as climate forecast support for safer operations in the Arctic?

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**Topic 3:** How can we reduce the overall environmental footprint and prevent negative environmental impacts in the Arctic?

# The EU Arctic Cluster

Implementing the European Arctic Policy  
and fostering international cooperation

Thank you for your participation!

